1. (CURRENTLY AMENDED) A device for the automatic control of joints in electrical high voltage lines, comprising:

a first support;

a first wheel for lying on the line;

a driving means for driving of said first wheel;

at least one second wheel, for lying on said line;

a measurement unit in contact with means for the measurement of physical data at said joint, said measurement unit comprising at least one pointed element for electrical contact with the line,

wherein at least one of said first and second wheels is provided electrically connected to said measurement unit,

wherein at least two of said first and second wheels are electrically connected to said measurement unit, the device further comprising means for feeding current to feed an electrical current from the first wheel to the second wheel through the line.

2. (CANCELLED)

3. (CURRENTLY AMENDED) The device according to claim [1] 2, wherein the means for measurement of physical data in the form of one pointed element also comprise at least one of said first and second wheels.

4. (CURRENTLY AMENDED) The device according to claim [1] 2, further comprising:

a retainer, journalled in the support so as to be swung up below the line to increase pressure of at least one of the first wheel and the second wheel against the line so as to improve electrical contact between the wheel and the line.

5. (ORIGINAL) The device according to claim 2, further comprising:

a retainer, journalled in the support so as to be swung up below the line to increase pressure of the wheel against the line.

6. (ORIGINAL) The device according to claim 3, further comprising:

a retainer, journalled in the support so as to be swung up below the line to increase pressure of the wheel against the line.

7. (CURRENTLY AMENDED) The device according to claim ~~[1]~~ 2, further comprising:

measurement indicators for measurement of the position of the device in relationship to the actual joint.

8. (ORIGINAL) The device according to claim 2, further comprising:

measurement indicators for measurement of the position of the device in relationship to the actual joint.

9. (ORIGINAL) The device according to claim 3, further comprising:

measurement indicators for measurement of the position of the device in relationship to the actual joint.

10. (ORIGINAL) The device according to claim 4, further comprising:

measurement indicators for measurement of the position of the device in relationship to the actual joint.

11. (ORIGINAL) The device according to claim 5, further comprising:

measurement indicators for measurement of the position of the device in relationship to the actual joint.

12. (ORIGINAL) The device according to claim 6, further comprising:

measurement indicators for measurement of the position of the device in relationship to the actual joint.

13. (ORIGINAL) The device according to claim 7, wherein the measurement indicator comprises a laser distance gauge.

14. (ORIGINAL) The device according to claim 8, wherein the measurement indicator comprises a laser distance gauge.

15. (ORIGINAL) The device according to claim 9, wherein the measurement indicator comprises a laser distance gauge.

16. (ORIGINAL) The device according to claim 10, wherein the measurement indicator comprises a laser distance gauge.

17. (ORIGINAL) The device according to claim 11, wherein the measurement indicator comprises a laser distance gauge.

18. (ORIGINAL) The device according to claim 12, wherein the measurement indicator comprises a laser distance gauge.

REMARKS

Claims 1-18 are now pending in the above-captioned application.

OBJECTION TO THE SPECIFICATION

The Examiner objected to some minor typographical errors which have been corrected by the above amendment. Applicant has carefully reviewed the Specification for any additional errors and has taken this opportunity to correct them.

In addition, Applicant has Amended the Specification to make it clear that the present application is a Continuation under 37 CFR §111(a) of PCT application Serial Number PCT/SE00/01462, filed on July 3, 2000. Applicant submits that this was clear from Applicant's original Priority Claim. However in reviewing the Application, Applicant notes that the PCT Application was incorrectly listed as a Foreign Priority claim on the cover sheet and Declaration.

A Petition under 37 CFR §1.78(a)(3) is filed concurrently herewith to correct this Priority claim information. Applicant submits that such a Petition is not necessary, as it is clear from the application that this is a §111(a) application entitled to Priority from the Patent PCT Application. However, Applicant defers to the decision of Petitions branch in this regard.

A corrected Declaration is also submitted herewith, correcting the typographical error noted by the Examiner and also correctly reciting the PCT application as a §120 Priority claim.

DRAWING OBJECTION

The drawings were objected to as the element "S" in Figure 1 is not described in the Specification. The Specification has been amended to recite this element "S" and thus applicant submits that the drawing objection is now moot.

REJECTION UNDER 35 U.S.C. §103

Claims 1-18 were rejected under 35 U.S.C. §103 as being unpatentable over Ross in view of Segerström et al (U.S. Patent No. 5,663,718). Applicant respectfully traverses this rejection.

In order to be complete, an obviousness-type rejection must contain two elements:

1. The references, as combined, must show all the features of the claimed invention (all elements rule); and

2. A *proper* motivation to combine the references must be provided.

In this instance, neither element is present.

Ross, a NASA Patent, discloses a means for inspecting cables and lines. Ross discloses wheels travelling over the line, but these wheels do not pass current to the line itself. An optical inspection device is used to inspect the line. The only measurement provided by the wheels is an optical encoder measuring distance travelled by the device (Col. 3, lines 65, through Col. 4, line 12, cited by the Examiner). Applicant has amended claim 1 to include the limitations of claim 2 (passing current through the wire using the supporting wheels), and thus claim 1 now clearly is distinguishable from the encoding wheel of Ross. As admitted in the Office Action, Ross does not teach or suggest sending current through the cable or wire using the supporting wheels.

Segerström, assigned to the same assignee as the present application, cited in the present Specification, and prosecuted by the undersigned, discloses an apparatus for automatic testing of joints in electrical high voltage lines. Segerström, as admitted in the Office Action, does not disclose sending current through the wire using the supporting wheels. The Examiner makes the argument that the wheels of the present claimed invention could be substituted for the points of Segerström, as the points of Segerström are located near the wheels of Segerström, and thus the two could be interchanged.

Applicant respectfully traverses this contention. There is no teaching or suggestion in Segerström to pass current through the wheels. Thus, any suggestion to substitute the points of Segerström with the wheels of the present invention is purely hindsight reconstruction.

In addition, the substitution argument does not address the limitations of dependent claim 4, which recites a retainer for holding the cable against the wheel. As noted in the Specification, this retainer allows for better electrical connection between the wheel and the cable. The Office Action claims that the wheel 40 of Ross acts as such a retainer. The "tension" wheel 40 of Ross acts only to provide sufficient pressure to provide traction for the apparatus - not an electrical connection. In contrast, the retainer of the present invention, which is not a wheel, can press the cable firmly into the drive wheel to provide proper electrical connection. When a measurement is not being taken, the retainer can be swung away to allow the apparatus to roll. The pressure needed to provide sufficient electrical contact would prevent the apparatus from rolling. Ross does not teach or suggest such a feature, as he does not contemplate passing current through his drive wheels.

CONCLUSION

The Prior Art references, taken alone or together, do not teach or suggest sending current through wheels on the device. Moreover, the references do not teach or suggest the limitations of claim 4, a retainer for holding the wheels against the cable to improve conductivity.

An early Notice of Allowance is respectfully requested.

Respectfully submitted,

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